

Transformer prot. 7SR54 8 curr. trans., 4 volt. trans., 8 TSI (Temperature Sensor Input), 22 BI, 12 BO Standard interface: 1 x USB (front), RS 485 (rear) + 2 x optical LC ports, S12 enclosure, including conformal coating



Figure similar

### Product details

|                         |    |
|-------------------------|----|
| number of function keys | 7  |
| number of LEDs          | 28 |

### Product Functions

|                                                                             |     |
|-----------------------------------------------------------------------------|-----|
| type of measured value detection / of operational measured value / standard | Yes |
| type of measured value detection / expanded / min./max. values, mean values | Yes |
| switching statistics                                                        | Yes |
| circuit breaker monitoring                                                  | Yes |
| product feature / logic editor                                              | Yes |
| control                                                                     | Yes |
| fault recording for analog and digital signals                              | Yes |
| sequence-of-events recorder                                                 | Yes |
| monitoring                                                                  | Yes |
| number of parameter sets                                                    | 4   |
| parameter set switchover                                                    | Yes |
| circuit breaker test                                                        | Yes |

### Protection Functions

|                                                                |     |
|----------------------------------------------------------------|-----|
| three-pole tripping                                            | Yes |
| synchrocheck (ANSI 25)                                         | Yes |
| undervoltage protection (ANSI 27)                              | Yes |
| directional power monitoring (ANSI 32)                         | Yes |
| forward power supervision (ANSI 32F)                           | Yes |
| reverse power protection (ANSI 32R)                            | Yes |
| undercurrent protection (ANSI 37)                              | Yes |
| unbalance protection (ANSI 46)                                 | Yes |
| overcurrent-time protection negative sequence system (ANSI 46) | Yes |
| phase-rotation supervision (ANSI 47)                           | Yes |
| overvoltage protection negative-sequence system (ANSI 47)      | Yes |
| thermal overload protection (ANSI 49)                          | Yes |
| definite overcurrent-time protection (ANSI 50/50N)             | Yes |
| Switch On To Fault (ANSI SOTF)                                 | No  |
| arc protection (ANSI AFD)                                      | Yes |
| sensitive ground current protection (ANSI 50Ns)                | No  |
| circuit breaker failure protection (ANSI 50BF)                 | Yes |
| dependent overcurrent-time protection (ANSI 51/51N)            | Yes |
| dynamic response value changeover (ANSI 51C)                   | Yes |
| voltage-dependent overcurrent-time protection (ANSI 51V)       | Yes |

|                                                                                                             |                             |
|-------------------------------------------------------------------------------------------------------------|-----------------------------|
| power factor (ANSI 55)                                                                                      | No                          |
| overvoltage protection (ANSI 59)                                                                            | Yes                         |
| overvoltage protection zero-sequence system (ANSI 59N)                                                      | Yes                         |
| directional overcurrent-time protection, phases (ANSI 67)                                                   | Yes                         |
| directional ground fault protection (ANSI 67N)                                                              | Yes                         |
| directional sensitive ground-fault detection for resonant-grounded systems and isolated systems (ANSI 67Ns) | No                          |
| trip-circuit supervision (ANSI 74TC)                                                                        | Yes                         |
| automatic reclosing (ANSI 79)                                                                               | No                          |
| frequency protection (ANSI 81)                                                                              | Yes                         |
| frequency variation protection (ANSI 81R)                                                                   | Yes                         |
| vector step protection                                                                                      | Yes                         |
| closing lock-out (ANSI 86)                                                                                  | Yes                         |
| differential protection, transformer (ANSI 87T)                                                             | Yes                         |
| ground fault differential protection (ANSI 87N)                                                             | Yes                         |
| fault locator (ANSI FL)                                                                                     | No                          |
| inrush current detection                                                                                    | Yes                         |
| external trip initiation                                                                                    | Yes                         |
| <b>Supply voltage</b>                                                                                       |                             |
| supply voltage / at AC                                                                                      | 100 ... 230 V               |
| supply voltage / at DC                                                                                      | 24 ... 250 V                |
| type of voltage / of the supply voltage                                                                     | AC/DC                       |
| <b>Inputs / Outputs</b>                                                                                     |                             |
| number of digital inputs / maximum                                                                          | 22                          |
| number of digital outputs / incl. signaling contact / maximum                                               | 12                          |
| number of voltage inputs / maximum                                                                          | 4                           |
| number of current inputs / maximum                                                                          | 8                           |
| <b>Communication</b>                                                                                        |                             |
| product component / operating interface (on the front)                                                      | Yes                         |
| protocol / is supported / Modbus TCP                                                                        | Yes                         |
| protocol / is supported / IEC 60870-5-103                                                                   | Yes                         |
| protocol / is supported / IEC 61850-8-1                                                                     | Yes                         |
| protocol / is supported / Modbus RTU slave                                                                  | Yes                         |
| protocol / is supported / DNP 3, serial                                                                     | Yes                         |
| protocol / is supported / DNP 3.0 TCP as server                                                             | Yes                         |
| protocol / is supported / PRP                                                                               | Yes                         |
| protocol / is supported / RSTP                                                                              | Yes                         |
| protocol / is supported / HSR                                                                               | Yes                         |
| <b>Time synchronization</b>                                                                                 |                             |
| type of time synchronization                                                                                | Data comms or Digital input |
| <b>Mechanical Design</b>                                                                                    |                             |
| width                                                                                                       | 308 mm                      |
| height                                                                                                      | 177 mm                      |
| depth                                                                                                       | 217.5 mm                    |
| frame size of enclosure                                                                                     | S12                         |
| product function / hardware configuration expandable                                                        | No                          |
| <b>Environmental conditions</b>                                                                             |                             |
| ambient temperature / during operation                                                                      | -10 ... +55 °C              |
| <b>Further information</b>                                                                                  |                             |

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**Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)**

[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=7SR5421-3AF26-1AA0](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=7SR5421-3AF26-1AA0)

**Tender specifications**

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